



Evaluation of Low Level Laser Therapy with Different Types on Recurrent Aphthous Stomatitis: A Randomized Control Study

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Abstract: Recurrent aphthous stomatitis (RAS) is the most frequent ulcerative lesion of the oral cavity which is associated with pain. Low level laser therapy (LLLT) has been evaluated for its effectiveness in pain reduction and acceleration of ulcer healing. The purpose of this study was to determine the effect of LLLT on RAS in addition to, compare the effect of Helium Neon laser (He-Ne) and Gallium Aluminum Arsenide laser (Ga-Al-As) on pain modulation and healing process in RAS. A total of 45 patients of both sexes, with RAS were included in the current study. The patients were divided randomly into three groups (15 patients in each group); group A (He-Ne, 632 nm, 1.56 mW, 1.22 J/cm²), group B (Ga-Al-As, 830 nm, 50 mW, 6.3 J/cm²) and group C (medical treatment group). Both pain and size of ulcer diameter were evaluated before and after treatment by three days. The results showed significant reduction in pain scores in group A and B ($P < 0.05$) while non-significant reduction was recorded in group C ($P = 0.21$) with percentage of improvement 82.53 %, 61.72 % and 6.6 % respectively. However ulcer diameter results represented that the percentages of improvement were 86.27%, 65.01% and 10.41% for group A, B and C respectively. He-Ne laser is effective than Ga-Al-As laser in management of RAS.

Keywords: Recurrent aphthous stomatitis, LLLT, Ulcer size, Pain.